



DOCKET NO.: CHIR-0340

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In Re Application of:**

**Bernhard Knapp, et al.**

**Application No.: 10/662,126**

**Filing Date: September 12, 2003**

**For: PROTEINS, IN PARTICULAR MEMBRANE PROTEINS, OF  
HELICOBACTER PYLORI**

**Confirmation No.: Not Yet Assigned**

**Group Art Unit: Not Yet Assigned**

**Examiner: Not Yet Assigned**

DATE OF DEPOSIT: *February 19, 2004*

I HEREBY CERTIFY THAT THIS PAPER IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE UNITED STATES PATENT AND TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☒ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of

the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

☐ In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:

☐ Certification in Accordance with § 1.97(e) is attached; or

☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.

☐ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:

☐ Certification in Accordance with § 1.97(e) is attached;

or

☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.

☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).

- ☐ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.
- ☒ Copies of references listed on the attached Form PTO-1449 are enclosed herewith
- ☐ Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

## EXCEPT THAT:

- ☐ In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- ☒ In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
- ☒ Copies of references **1 thru 19 and 28 thru 39** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No.09/230,158, filed **January 19, 1999**.

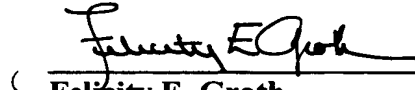
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**PATENT**

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Date: February 19, 2004

  
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<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. <b>CHIR-0340</b>	Application No. <b>10/662,126</b>
		Applicant <b>Berhard Knapp, et al.</b>	
		Filing Date <b>September 12, 2003</b>	Group <b>Not Yet Assigned</b>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>1</b>	Blaser, et al., "Identification and Characterization of <i>Campylobacter jejuni</i> Outer Membrane Proteins", <i>Infection and Immunity</i> , <b>1983</b> , 42(1), 276-284	
	<b>2</b>	Doig, et al., "Identification of Surface-Exposed Outer Membrane Antigens of <i>Helicobacter pylori</i> ", <i>Infection and Immunity</i> , <b>1994</b> , 62(10), 4526-4533	
	<b>3</b>	Doig, et al., "Isolation and Characterization of a Conserved Porin Protein from <i>Helicobacter pylori</i> ", <i>Journal of Bacteriology</i> , <b>1995</b> , 177(19), 5447-5452	
	<b>4</b>	Doig, et al., "Production of a Conserved Adhesion by the Human Gastro duodenal Pathogen <i>Helicobacter pylori</i> ", <i>Journal of Bacteriology</i> , <b>1992</b> , 174(8), 2539-2547	
	<b>5</b>	Dunn, et al., "Purification and Characterization of Unease from <i>Helicobacter pylori</i> ", <b>1990</b> , <i>Journal of Bio-Chemistry</i> , <b>1990</b> , 265(16), 9464-9469	
	<b>6</b>	Evans, et al., "Cloning, Nucleotide Sequence and Expression of a Gene Encoding an Adhesin Subunit Protein of <i>Helicobacter pylori</i> ", <b>1993</b> , <i>Journal of Bacteriology</i> , 175(3), 674-683	
	<b>7</b>	Exner, et al., "Isolation and Characterization of a Family of Porin Proteins from <i>Helicobacter pylori</i> ", <b>1995</b> , <i>Infection and Immunity</i> , 63(4), 1567-1572	
	<b>8</b>	Tomb, J. et al., "The Complete Genome Sequence of the Gastric Pathogen <i>Helicobacter Pylori</i> ", <i>Nature</i> , <b>1997</b> , 388, 539-412	
	<b>9</b>	Tufano, et al., "Immunobiological Activities of <i>Helicobacter pylori</i> Porins", <i>Infection and Immunity</i> , <b>1994</b> , 62(4), 1392-1399	
	<b>10</b>	Worst, et al., "Iron-Repressible Outer Membrane Proteins of <i>Helicobacter pylori</i> Involved in Heme Uptake", <i>Infection and Immunity</i> , <b>1995</b> , 63(10), 4161-4165	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	



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<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
<b>11</b>	Bukanov, N.O. et al., <i>Molecular Microbiology</i> , <b>February 1994</b> , 11(3), 509-523	
<b>12</b>	Dunkley, M.L. et al, <i>Microb Ecol. Health Dis.</i> , <b>1991</b> , 4(spec. issue), S148	
<b>13</b>	Heap, K. et al., <i>Microb Ecol. Health Dis.</i> , <b>1991</b> , 4(spec. issue), S119	
<b>14</b>	Lewin, R., "When does Homology Mean Something Else", <i>Science</i> , <b>1987</b> , 237, 1570	
<b>15</b>	Monath, T.P. et al., <i>American Journal of Gastroenterology</i> , <b>1994</b> , 89(8), 1383	
<b>16</b>	Orkin, S.H. et al., <i>Report and Recommendations of the Panel to Assess the NIH Investment in Research on Game Therapy</i> , <b>December 1995</b>	
<b>17</b>	Reeck, G.R. et al., "Homology" in Proteins and Nucleic Acids: A Terminology Muddle and a Way Out of It", <i>Cell</i> , <b>1987</b> , 50, 667	
<b>18</b>	Taylor, D.E. et al., <i>J. Bacteriology</i> , <b>November 1992</b> , 174(21), 6800-6806	
<b>19</b>	Yokoyama, T. et al., <i>Alimentary Pharmacology and Therapeutics</i> , <b>2000</b> , 14(1), 193-198	
<b>20</b>	Alberts, B. et al., "Molecular Biology of the Cell", <i>Membrane Proteins</i> , 2 <sup>nd</sup> Ed., Garland Publishing, Inc., <b>1989</b> , 284-298	
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<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
	<b>21</b>	Bolin, I. et al., "Identification of <i>Helicobacter pylori</i> by Immunological Dot Blot Method Based on Reaction of a Species-Specific Monoclonal Antibody with a Surface-Exposed Protein", <i>J. of Clinical Microbiology</i> , <b>1995</b> , 33, 381-384
	<b>22</b>	Drouet, E.B. et al., "Characterization of an Immunoreactive Species-Specific 19-Kilodalton Outer Membrane Protein from <i>Helicobacter pylori</i> by Using a Monoclonal Antibody", <i>J. of Clinical Microbiology</i> , <b>1991</b> , 29, 1620-1624
	<b>23</b>	Huang, J., et al., "Identification of Erythrocyte-Binding Antigens in <i>Helicobacter pylori</i> ", <i>J. of Gen. Microbiol.</i> , <b>1992</b> , 138, 1503-1513
	<b>24</b>	Kostrzynska, M. et al., "Molecular Characterization of a Converted 20-Kilodalton Membrane-Associated Lipoprotein Antigen of <i>Helicobacter pylori</i> ", <b>1994</b> , 176(19), 5938-5948
	<b>25</b>	Bullimore, D. et al., "The Role of Polyamines in Hepatic Encephalopathy and Cerebral Oedema", <i>European Journal of Gastroenterology &amp; Hepatology.</i> , <b>1993</b> , 5, 63-67
	<b>26</b>	Labigne, A, et al., "Shuttle Cloning and Nucleotide Sequences of <i>Helicobacter pylori</i> Genes Responsible for Unease Activity", <i>J. Bacteriol</i> , <b>1991</b> , 173, 1920-1931
	<b>27</b>	Odenbreit, S. et al., "Cloning and Genetic Characterization of <i>Helicobacter pylori</i> Catalase and Construction of a Catalase-Deficient Mutant Strain", <i>J. Bacteriol</i> , <b>1996</b> , 178, 6960-6967
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**U. S. PATENT DOCUMENTS**

Examiner Initial	Document No.	Date	Name	Class	Subclass

**FOREIGN PATENT DOCUMENTS**

Examiner Initial	Document No.	Date	Country	Translation	
				YES	NO
	<b>28</b> FR 2 724 936	09/22/94	France		
	<b>29</b> WO 91/9116457	10/91	PCT		
	<b>30</b> WO 94/26901	11/24/94	PCT		
	<b>31</b> WO 94/9400580	01/94	PCT		
	<b>32</b> WO 96/38475	12/05/96	PCT		
	<b>33</b> WO 96/40893	12/19/96	PCT		
	<b>34</b> WO 97/11721	04/03/97	PCT		
	<b>35</b> WO 97/12908	04/10/97	PCT		
	<b>36</b> WO 97/12909	04/10/97	PCT		
	<b>37</b> WO 97/19098	05/29/97	PCT		
	<b>38</b> WO 97/37044	10/09/97	PCT		
	<b>39</b> WO 98/04702	02/98	PCT		

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